

Notice of Allowability

Application No.

10/647,290

Examiner

Terry L. Englund

Applicant(s)

KINUGASA ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amdt/Dwgs (Dec 22, 2004).
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ The drawings filed on 22 December 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's ~~Amendment~~ Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Amendment/Drawings

The amendment and drawings submitted on Dec 22, 2004 have been reviewed and considered with the following results:

The drawings, and/or changes to the disclosure, overcame all the objections to the drawings described in the previous Office Action. Those objections have now been withdrawn.

The other changes to the disclosure overcame the objections to the disclosure, which have also been withdrawn.

The amended claims overcame the objections to claims 5-8, 11, 13-14, 17, and 19, as well as the rejections of claims 3-4, 7-8, 10-11, 13-14, and 17-19 under 35 U.S.C. 112 that were described on pages 3-5 of the previous Office Action. These claim objections and rejections have now been withdrawn.

There are no known objection or rejection remaining within the present application.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

None of the prior art references reviewed and considered shows or discloses the switch circuit, which comprises at least one transistor and at least one rectifying element, as recited within independent claims 1, 12, 20, and 21. More specifically, none of the references clearly shows/discloses: 1) the first rectifying element, connected between the first terminal and a power supply terminal of the control circuit, being formed in a second semiconductor region separate from the first semiconductor region, in which a first transistor is formed, as recited within each of claims 1 (upon which claims 2-11 depend) and 20; or 2) a first rectifying element, formed in a

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first semiconductor region, connected between a first power supply voltage and a back gate/base of a first transistor; and a second rectifying element, formed in a second semiconductor region separate from the first semiconductor region, and connected between the first terminal and a power supply terminal of the control circuit, as recited within each of claims 12 (upon which claims 13-19 depend) and 21. Since there is no strong motivation to modify or combine any prior art reference(s) to ensure the transistor and rectifying element, or the first and second rectifying elements, are formed in the separate semiconductor regions as recited, the claims are deemed patentably distinct over the prior art of record.

Claims 1-21 are allowed.

Any comments considered necessary by the applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication, or previous communications, from the examiner should be directed to Terry L. Englund whose telephone number is (571) 272-1743. The examiner can normally be reached Monday-Friday from 7 AM to 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (571) 272-1740.

The new central official fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1562.

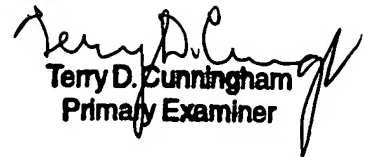
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Terry L. Englund

11 March 2005



Terry D. Cunningham
Primary Examiner